

16.

Claims

1. A system for providing a policy based Quality-of-Service management in multi-radio access mobile networks, comprising:

control center means for administrating said radio access networks, thereby controlling the behavior thereof,

wherein an information model is implemented in said control center means which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy thus representing the manageable parameters of specific network implementations, and

wherein said information model forms the basis of a set of policy rules defining actions to be executed in dependency of the occurrence of conditions; and

a policy based management device adapted to receive said set of rules for the implementation thereof, said device having

a plurality of policy based radio resource management means each adapted for managing said parameters of specific network implementations, and

a translation function means adapted to translate said rules in a form executable by said plurality of policy based radio resource management means.

2. A system according to claim 1, wherein said set of rules is implemented in a policy server.

3. A system according to anyone of the foregoing claims, wherein said control center means comprises a user interface for entering and/or selecting a policy according to a specific subset of rules.

4. A system according to anyone of the foregoing claims, wherein said control center device further comprises a configuration data base for storing said parameters.

5. A system according to anyone of the foregoing claims, said system further comprising:

policy enforcement means representing entities whose behavior is going to be managed by said policy rules;

policy decision means defining a group of functionalities in charge of acquiring, deploying and translating said policy rules into a form executable by said policy enforcement means;

policy repository means for containing the policies defined an administrator of said radio access networks;

management information base means for informing about the behavior of said policy enforcement means; and

policy information base means for containing possible rules of all relevant functions of a specific policy enforcement means so that said rules can be downloaded by said policy decision means into said policy enforcement means.

6. A method of providing a policy based Quality-of-Service management in multi-radio access mobile networks, comprising the steps of:

defining an information model by

modeling radio Quality-of-Service functions,

abstracting implementation details from configuration and management parameters thereof,

identifying manageable parameters of these, and building policy rules for the execution of certain actions in dependency of the occurrence of certain conditions among said manageable parameters;

evaluating the conditions; and

executing, in dependency from said evaluation step,

those actions which are prescribed by said policy rules as a consequence from the occurrence of certain conditions,

wherein said policy rules are administrated by a central controlling point if they take effect on the Quality-of-Service behavior at the network level.

7. A method according to claim 6, wherein submitted policy rules are checked for their service logic consistency.

8. A method according to claim 6 or 7, wherein a data structure is generated by a management information base which is specific for a point where a policy rule is enforced.

9. A method according to any one of claims 6 to 8, comprising the further step of

distributing functions resulting from policy rules into logical elements of control nature and/or user nature for enabling local decisions on local conditions, wherein the service logic of said elements remains under the control and administration of a policy server.